



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,742	06/27/2003	Yao Wang	EMC-01-183CIP1	7763
24227	7590	03/01/2007		
EMC CORPORATION OFFICE OF THE GENERAL COUNSEL 176 SOUTH STREET HOPKINTON, MA 01748			EXAMINER BELL, CORY C	
			ART UNIT	PAPER NUMBER
			2164	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/608,742	<b>Applicant(s)</b> WANG ET AL.	
	<b>Examiner</b> Cory C. Bell	<b>Art Unit</b> 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



**SAM RIMELL**  
**PRIMER EXAMINER**

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. After claims 1 there allowed claim from 09/957,278 is repeated after the period of claim 1. It is not believed the applicant intended this to be limiting as its limitations are reworded before the occurrence of the first period. However, further correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2164

Claims 1-6, 9-15, and 18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7155463 in view of US 6757696.

1. Claims 1 and 10 are rejected for the following reasons:

1. A computer architecture for managing resources for replication of data stored in a data storage environment including at least two data storage systems, and wherein data is replicated from one of the at least two data storage systems to at least one other data storage system of the at least two data storage systems, the architecture comprising: a data replication management server(*Col 31 line 24-36*); one or more data replication management software agents in communication with at least one of the two data storage systems and the data replication management server(*Col 31 lines 27-29, device engines are the software agents*), the agents being configured for performing data replication operations in response to commands from the data replication management server(*Col 31 lines 29-36*), wherein server commands to each of the software agents are sent over a network in accordance with an IP protocol(*Col 31 lines 21-23, Http is an IP protocol*); and one or more data replication management clients(*each device engine represents a client to the management server*) that may include a software application that uses data that is replicated by commands from the server to the software agent(*Although this limitation is optionally recited and thus non-limiting it can be found in Col 42 lines 38-45*).

Art Unit: 2164

The instant limitation of “said data being replicated on a volume basis” can be found in col 4 lines 33-44, col 5 lines 1-6, which clearly show the data being replicated on a volume basis using the broadest reasonable interpretation.

The newly added limitation is equivalent to claim 1 of 7155463 as stated on page 9 of the instant remarks.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include these features due to the advantages of the platform independence it provides.

2. Claims 2 and 11 are rejected for the following reasons:

Col 4 lines 36-43 teaches the client having “Microsoft Windows NT” which is a GUI which the client inherently communicates to the Server through.

3. Claims 3-4 and 12-13 are rejected for the following reasons:

Col 31 lines 24-36 teaches the system using lock (or switches) to control read and write access between the software agents and the data storage, as they control read and write access the determine the direction of the flow of data from one source to another, and show that the server controls the replication. Claim 4 is also non-limiting as it is an intended use claim.

4. Claims 5 and 14 are rejected for the following reasons:

The architecture of Claim 4, wherein the server stores configuration information

Art Unit: 2164

for replication(*The system inherently must contain lock information*), security(*The server must inherently contain SSL configuration information Col 31 line 21-23*) and other configuration settings for the one or more software agents(*Col 31 lines 37-42*) and the one or more clients(*Col 31 lines 58-50*) in the data storage environment.

5. Claims 6, 9, and 15 are rejected for the following reasons:

The architecture of Claim 5, wherein communication between the server and the one or more clients is encrypted for security purposes. (*Col 31 21-23*)

6. Claim 18 is rejected for the following reasons:

See claim 1 and 10 rejection. The system also inherently contains agents configured with a computer-executable program for performing data replication operations in response to commands, as the software agents that are inherently contained on the storage servers must be able to implement locks in response to server commands (*Col 31 lines 27-36*).

7. Claims 7-8, and 16-17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7155463 in view of US 6757696 and US Patent Number 5751813, known hereafter as Dorenbos.

8. Claims 7-8 and 16-17 are rejected for the following reasons:

Multer and 7155463 covers the claims upon which claim 6 is dependant, but fails to teach using encryption using 129 bit keys or greater. Dorenbos teaches the use of keys up to 1024 bits to

Art Unit: 2164

encrypt messages (*Col 1 lines 20-33*). Thus, it would have been obvious to one of ordinary skill in the art to encrypt messages using 1024 bit keys due to the advantages that a larger key provides better protection for data which clients or the server may wish to keep private.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**SAM RIMELL**  
**PRIMARY EXAMINER**